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A Changing Latin America

There is a sense of urgency in the way Latin America is viewing its own future. Things are happening. The Alliance for Progress, aimed at helping Latin America grow and develop, is moving ahead. New ways are being considered to stabilize markets for the tropical and semi-tropical products that Latin America exports in such great quantities.

There is a sense of urgency too about land for people, education for people, better diets, and better living conditions.

All of these are targets for today and tomorrow. They add up to a broad sweep of social and economic advancement as the goal for the 1960's.

We try to deal with this here, in an issue devoted largely to Latin America. Our first article concerns the Alliance for Progress proposed by President Kennedy last year and now getting underway. On page 5, we present "blueprints for progress" reflecting the agricultural plans of four of the Latin American countries, and on page 9, we report on land use and distribution.

There is much else of interest—our agricultural trade with Latin America, Mexico's rapid progress, Bolivia's development plan, a comparison of diets, a pictorial feature on rural youth activities.

We hope that through exposition on these pages of Latin America's hopes and plans we are making some helpful contributions to its future and to that of the Western Hemisphere.

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Cover Photograph

Legislative Offices in Brazil's new capital, Brasilia, built in near-wilderness country to spur development of the vast, all-but-untouched interior. This ultra-modern city is a symbol of the future Latin American countries are planning for. (Pan American photograph.)

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Alliance for Progress

"The American states have reached a stage in their historic evolution in which the peoples' cooperation and very conscience makes it possible to seek and find, through joint programs, the solution to ancient problems through a better use of new scientific methods and techniques that contribute to the general social and economic development."
—JOSE A. MORA, Secretary General, OAS, 1961

". . . I have called on all the people of the hemisphere to join in a new Alliance for Progress—'Alianza para Progreso'—a vast cooperative effort, unparalleled in magnitude and nobility of purpose, to satisfy the basic needs of the American people for homes, work and land, health and schools—techo, trabajo y tierra, salud y escuela."
—JOHN F. KENNEDY, President of the United States, 1961

By CHARLES R. DAVENPORT
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The challenge facing the Alliance for Progress has been likened to that of the Marshall Plan in 1948. While this is true in part, it is also a great oversimplification. Alliance problems are infinitely more complex.

In the Marshall Plan, capital was the primary need, as a catalyst for the reconstruction and modernization of an already developed industrial society. The Alliance, however, concerns a vast underdeveloped complex of nations and calls for a successful assault upon a whole mountain range of closely interrelated social and economic problems.

Latin America has an area more than twice that of the United States. Its population, estimated at 207 million in 1960, is growing at the rapid rate of almost 3 percent per year and is expected to reach 260-270 million by 1970. Social problems are extreme. They range from average illiteracy rates of 40 percent to a land tenure system under which, it is estimated, less than 5 percent of the population owns over 90 percent of the land in farms, and much of the remaining land is plagued by extreme fragmentation.

On the economic side also, problems are severe. National income averages about $250 per capita per year. Agricultural production is barely keeping pace with population growth, and sizable blocks of the population are receiving diets inadequate in terms of minimum nutritional standards. These are the difficulties which the American States, under the Alliance, are committed to resolve in the present decade.

How It Began

The Alliance for Progress represents a new period in the Western Hemisphere cooperation that had its beginnings in the first inter-American conference, convened by Simón Bolívar in Panama in 1826. Both this earlier meeting and the one at Punta del Este, Uruguay, which led to the Alliance, resulted from growing concern with pressing mutual problems of the American States. The Alliance, however, stimulated by a series of recent events, reflects unparalleled hemispheric maturity and solidarity.

In 1958 President Kubitschek of Brazil proposed that "Operation Pan America" be undertaken through the Organization of American States to find solutions to common problems and formulate new measures for economic cooperation. As a result, 19 of the 20 Americas States adopted the Act of Bogotá in 1960. This Act set forth measures for social improvements and recommended that measures for economic development and multinational cooperation for social and economic progress be undertaken.

President Kubitschek's proposal and the Act of Bogotá also resulted in the establishment of the Inter-American Development Bank (IDB) in 1959 and its special Inter-American Fund for Social Progress in 1961. The Bank's regular resources are authorized at $1 billion, of which the U.S. share is $450 million. The Bank's Special Fund totals $394 million, supplied by the United States.

President Kennedy, on March 13, 1961, proposed the Alliance for Progress and announced his plan to request a special meeting of the Inter-American Economic and Social Council to attain this objective.

A meeting of that Council at the ministerial level took place in Punta del Este during the period of August 5-17, 1961. Here the Alliance for Progress was forged. It was entered into by 20 of the 21 American States, Cuba abstaining.

Measures It Includes

The several measures adopted at Punta del Este included a Declaration to the Peoples of America, the Charter of Punta del Este, and several appended resolutions.

In the Declaration, the American Republics agreed to establish an Alliance for Progress: "A vast effort to bring a better life to all peoples of the Continent." The Declaration recognized the principles of democracy and individual dignity and outlined 12 broad social and economic goals.

The United States, for its part, pledged to supply financial and technical cooperation, including a major part of the minimum of $20 billion estimated as external needs over the next 10 years. As the initial step, it

pledged to make available more than $1 billion for the 12 months beginning March 13, 1961.

The countries of Latin America, for their part, agreed to devote a steadily increasing share of their own resources and to make the reforms necessary. Their contribution is to include the formulation of a national development program by each country.

The Charter established the Alliance for Progress within the concept of Operation Pan America. The Charter consisted of a preamble and four titles: Objectives, Economic and Social Development, Economic Integration of Latin America, and Basic Export Commodities.

Goals to be achieved in the present decade were based on the Declaration and detailed under 12 objectives in Title I. The first two objectives are aimed at economic growth: Income levels to assure self-sustaining development and to narrow the gap in relation to more industrialized nations, with growth rates of not less than 2.5 percent per capita per year; and more equitable income distribution, while assuring a higher proportion of the national product for investment.

The next three objectives deal with development: Lessening of dependence on primary exports and capital imports and obtaining export stability; acceleration of rational industrialization with special attention to capital industries; and increased productivity and improved marketing in agriculture. A basic objective is to encourage comprehensive agrarian reform programs to eliminate both extremely large and extremely small holdings.

Other objectives are the elimination of adult illiteracy by 1970, and improved education; increased life expectancy and improved public health; accelerated construction of low-cost housing and provision of public services; stabilized prices; Latin American economic integration; and cooperative programs to prevent harmful fluctuations in primary export earnings.

Title II, Economic and Social Development, contains guidelines on basic development requirements, national development programs, immediate and short-term measures, external assistance in support of national development programs, and organization and procedures. The need is recognized for technical assistance from the Organization of American States, the Economic Commission for Latin America, the Inter-American Development Bank, and United Nations specialized agencies.

A panel of nine high-level experts is to be attached to the Inter-American Economic and Social Council to provide assistance as requested. This assistance is to be in the form of help and comment on country programs by an ad hoc committee appointed by the Secretary General of the OAS, composed of no more than three panel experts and an equal number of other experts. Committee comments, with country consent, are to be made available to guide external financing priorities and decisions. Finally, the Inter-American Economic and Social Council will make an annual report of progress and recommendations to OAS.

Title III, Economic Integration of Latin America, dealt with this goal in some detail and provided that countries still in colonial status should be invited to participate in the Alliance as they achieve their independence.

Title IV, Basic Export Commodities, included national measures and international cooperation activities designed to expand trade in such commodities, increase foreign exchange from exports, reduce cyclical or seasonal price fluctuations, and improve the terms of trade of such commodities.

Sixteen resolutions were appended to the Charter, enlarging upon certain aspects of Alliance provisions or on the execution of them. Three resolutions dealt with special education, public health, and taxation programs. Establishment of Alliance task forces for programing was recommended. Four studies were called for. Seven resolutions were concerned with Latin American primary exports, singling out coffee, meat, and wool. Finally, guidelines were established for preparation of the annual progress and recommendations report by the Economic and Social Council in connection with annual meetings of the Council.

How It Functions

To meet the challenge it faces, the Alliance depends on three tools: Its own structure or machinery, action by the Latin American States, and external assistance by the United States.

Alliance machinery is rapidly becoming established and operative. The panel of nine experts has been appointed and is organizing itself to provide assistance. Experts named to this panel are Hernando Agudelo Villa of Colombia; Ernesta Malaccorto of Argentina; Manuel Noriega Morales of Guatemala; Felipe Pazos of Cuba; Harvey Perloff of the United States; Gonzalo Robles of Mexico; Paul Rosenstein-Rodan of the United Kingdom; Raúl Saez of Chile; and Ary Frederico Torres of Brazil.

In addition, task forces have been formed to assist panel committees and country groups in the evaluation and formulation of program proposals. The Inter-American Committee on Agricultural Development, formed by joint agreement between the OAS, FAO, the Economic Commission for Latin America, and the Inter-American Institute of Agricultural Sciences, has been operational since October and has fulfilled many advisory assignments.

Latin American States have taken important internal action. Leaders in government, business, and education throughout Latin America have supported Alliance objectives. At the same time the bulk of the population —from factory workers to campesinos —are coming to appreciate and support the principles of self-help and dedication which are inherent in the Alliance and which are based on the realization that external assistance alone cannot solve the problem. Outstanding examples of internal action to date include far-reaching agrarian reform legislation approved and signed in Colombia and El Salvador. Similar proposals are in various stages in other Latin American States.

The United States has met and exceeded its financial commitments under the Act of Bogotá and the Alliance Charter. U.S. funds for the Alliance are being put into use through many channels other than the IDB. These include Export-Import Bank loans, assistance through the Agency for International Development (AID), and the several programs under Public Law

(Continued on page 26)

Modern plant for processing vegetable oils, Sao Paulo State, is one of Brazil's largest.

Blueprints for Progress

—the agricultural goals of four Latin American countries

When the 19 Latin American republics signed the Charter of Punta del Este setting up the Alliance for Progress, they pledged themselves to work toward the achievement of 12 major objectives. One of these objectives pertains to agriculture; namely, increased productivity and improved marketing of agricultural commodities.

Despite the present trend toward industrialization, the economy of this vast and varied continent is still based largely on agriculture. And even before the Punta del Este meeting most of the Latin American countries had already drawn up agricultural programs or, at least, had established some general goals. This article deals with these goals as interpreted by our agricultural attachés in four countries—Argentina, Brazil, Colombia, and Guatemala.

What was the basis for selection—and why were these particular countries picked and not others?

Argentina was chosen because it competes with the United States in the world's agricultural markets. Its agricultural products are much the same as ours—wheat, livestock products, oilseeds, corn—and it too has surpluses that it must dispose of.

Brazil is the largest country in Latin America. In area it is bigger than the conterminous United States, and one-third the people of Latin America live there. Its resources are rich and its agricultural problems are diverse. But like many of the Latin American countries, Brazil has a one-crop economy. It is the world's largest producer and exporter of coffee.

Colombia and Guatemala were selected mainly because of their geographic locations. Colombia, on the northeast coast of South America, has increased its agriculture sharply since World War II. Guatemala represents Central America. In 1954, it threw off its Communist government and ever since has cooperated in Hemisphere actions.

Argentina

For many years Argentina has been one of the world's great exporters of agricultural products. During the 1920's and 1930's, it was the largest exporter of a number of commodities and in much of that period shipped more than half of the world's total exports of flaxseed, corn, and beef.

About 20 years ago Argentina's agricultural production started to decline. Exports fell off even more sharply than production because of substantially higher domestic consumption.

This downward trend can be attributed in large part to the policies of Juan Peron, who tried to extort from Argentine farmers virtually the entire cost of a crash program of industrialization. Most of these policies have now been abandoned, but such burdens as export taxes, high production costs, poor transportation, and lack of capital still weigh heavily enough on agriculture to make recovery very slow.

The tremendous and widening gap in Argentina's trade balance has caused the government this past year to become increasingly concerned by the continued depressed state of the country's exports, 95 percent of which are agricultural. On January 2, the Secretary of Agriculture and Livestock made a major policy statement pledging the government to take the strongest measures to bring Argentine agricultural production up to optimum levels.

Some of the specific programs which will be undertaken are:

- Removal of export taxes and retentions on agricultural products
- Greatly expanded research and extension programs
- An intensified and nationally coordinated campaign against diseases and pests affecting plants and animals

- Better transportation facilities
- Measures to improve credit facilities
- Search for new overseas markets for agricultural products as well as maintenance and expansion of present markets.

Through these measures the Argentine Government hopes to bring agricultural production up to or above the level of 20 years ago. (The Secretary pointed to the example of the United States which has greatly increased production over this period, at the same time reducing its cultivated area.) If the various programs are effectively carried out, Argentine farms, with their fertile soils, favorable climatic conditions, and their ready accessibility to consumption centers and seaports, should be able to increase substantially their output of farm products, at prices that are competitive on world markets.

—QUENTIN R. BATES

Brazil

A favorite saying of Brazilians is that their huge land is composed of many countries: The temperate South, the tropical North, the humid Amazon Basin, the arid Northeast, the industrialized State of São Paulo, the carnival country of Rio, and so on. One of these divisions separates the heavily populated coastal region, where over 90 percent of the people live within 250 miles of the sea, from the almost uninhabited interior which accounts for over two-thirds of the country's area.

This concentration of population along the coast has caused a number of problems in agriculture. One is the lack of agricultural land, both to meet the desires of the rural population for farms of their own and to supply food and fiber for urban centers.

A long-range plan of the Brazilian Government, then, is to relieve the pressure on the agricultural resources of the coast by opening up the back country—the "sertão," as it is called. These interior highlands are being crisscrossed with roads, bridges, and railroads, enabling settlers to move in and occupy new land and permitting supplies of foodstuffs and fibers to be brought out for the cities along the coast. In areas that were virtually unexplored only 10 years ago, new cities, including the spectacular Brasilia, and small settlements are springing up.

Brazil, however, is too large to settle in a few years so the government has short-range plans as well, which are designed to provide more agricultural products for the cities while improving the lot of the farmer. The key point in these plans is increased productivity.

The methods by which the Brazilian Government will achieve this goal are spelled out in a law now before the Congress. This legislation will establish a Federal Agricultural Fund to provide more credit, with less red tape, for seeds, fertilizer, pesticides, improved livestock, and farm equipment. It will also reorganize the Ministry of Agriculture so as to make its operations more flexible and permit it to bring the benefits of research to every farmer.

Considerable emphasis is given to research. Money from the Fund will be used to build research stations, contract for technicians, set up training courses, and greatly expand the scientific work now being done in fighting animal diseases and pests.

At the same time, the Fund provides for a wider dissemination of agricultural information. Technical aid will be given on the farm to farmers and cattlemen. Libraries will be expanded, and exhibits of technical-scientific interest projected for agricultural centers. Agricultural industries will also get technical help.

While it is quite possible that this law setting up the Fund and reorganizing the Ministry of Agriculture will not be passed in its present form, it does show the direction in which the present Administration wants to move. Moreover, Armando Monteiro Filho, Minister of Agriculture, made a strong case for the legislation when he presented it by saying: "The notorious deficiency of Brazil's agricultural production is the principal contributing factor in the ever-increasing cost of living. The Ministry is mobilizing all its resources to promote increased productivity in the farm and improvement of the lot of the farmer, and it does not seem out of place, therefore, to complain about the paucity of resources available to it for these tasks."

—FORD M. MILAM

Colombia

Colombia is characterized by a wide variety of climatic zones, from tropical sea level to permanently snowcapped mountains; consequently, it is generally divided into three radically different regions of about equal size.

The eastern part, the Llanos, is low-lying country, sparsely inhabited and practically unused. In sharp contrast is the western part where three great ranges of the Andes give a rugged topography. Along the Caribbean coast is the huge delta of the Magdalena River, where the land is flat and fertile but where few people lived until the advent of modern disease control.

This wide range of altitudes and temperatures permits Colombia to grow a variety of crops. Almost any crop that is grown in the United States can be produced in Colombia, although not always commercially; and in addition, many crops that cannot be grown in the United States are produced in the country's tropical areas. Colombian agriculture also benefits from generally adequate precipitation, a plentiful labor supply, and in the lower elevations long growing seasons with two crops a year.

Despite this potential, Colombia from an international viewpoint, has a one-crop economy—coffee, which produces three-quarters of its foreign exchange income. Declining coffee prices in recent years have reduced foreign exchange earnings and required the setting-up of an austerity program, with a wide list of prohibited imports, industrial and agricultural.

As a result, there is a very intense desire to attain self-sufficiency in crop production. In fact, this is the main goal of the government's agricultural policy. Various studies made in recent years indicate that, except for wheat, Colombia could eventually produce the foodstuffs it needs. And within the next decade it will probably be exporting slightly more coffee, and considerably larger amounts of cotton, bananas, tobacco, sugar, livestock, and meat products.

Farming in many areas is handicapped by primitive equipment, low-yielding crop varieties, low fertilizer use, inadequate pest control, few stor-

Above, testing germination of hybrid seed corn in Brazil. Right, students at Guatemala's National Agricultural School study soil map.

Photos courtesy Pan American Union

age facilities, and poor marketing and distribution. However, the Colombian Government is not standing still. It has outstanding research stations, an effective extension service, and an agricultural credit bank with a loan portfolio of $150 million. And it is getting help from such groups as the Rockefeller Foundation and AID.

Probably the most convincing proof of the government's earnestness is the fact that Colombia was the first of the Latin American nations to submit its proposed development plan for help under the Alliance for Progress program. Also, Colombia has just enacted an agrarian reform law which is modeled on democratic lines and represents a free society's effort to resolve the socially dangerous problems of rural congestion and low income.

—Henry Hopp

Guatemala

Guatemala must expand and diversify its agricultural production to satisfy the basic food needs of a rapidly increasing population and to insure an adequate income from its agricultural exports. To achieve these broad goals, Guatemala must increase crop yields, develop and colonize idle but potentially productive land, and improve marketing and distributing of agricultural products.

Guatemala's principal export crops are coffee, bananas, and cotton, which in 1961 accounted for about 80 percent of the country's foreign exchange earnings. Coffee is the largest single source of foreign exchange. It is also the largest single source of government revenue collected through export tax.

The production, harvesting, and processing of these three crops employ the largest portion of the farm labor. However, the recent withdrawal of one of the two banana-producing and exporting companies and the cutback in operations of the other have posed a problem because of a decline in foreign exchange earnings which will result. Moreover, the immediate outlook for any substantial improvement in the export prices of coffee is not too optimistic.

Thus, Guatemala must look to new crops to provide for significant improvements in rural living standards. The government's agricultural technicians believe that by 1967 diversification can be accomplished to a significant degree by increasing production of such quick-yielding crops as sugarcane, cotton, truck crops, and sesame and soybeans or other oilseed crops. They recognize that this may not be a final answer because most of these crops suffer from chronic or periodic world surpluses and weak prices. Consequently, they also plan to increase production of slower maturing crops that have greater marketing potential so that by 1967 these crops can supplement the foreign exchange earnings of the traditional export products.

For this purpose, emphasis over the long run will be on rubber, cacao, tree fruits, and also on beef cattle. The government estimates that by 1972 Guatemala must expand the production area of these crops by more than 100,000 acres and increase its beef cattle population by half a million. Acreage will be increased by shifting from low-income-earning crops to the new ones and by developing previously unused land for colonization projects.

By 1972, it is expected that government and private agencies will have expanded to meet the increased needs of farmers, and that farm, market, and processing facilities will have been developed to collect, process, and distribute the finished products to Guatemalan and foreign consumers.

Guatemala plans to rely heavily on the Alliance for Progress for assistance. It has requested grant aid from AID to strengthen the National Agricultural Institute work in investigations and extension. AID also is studying several loan requests for land development, market establishment, and agricultural credit programs.

—John E. Montel

Bolivia Anticipates a Better Future

Its new development program under the Alliance for Progress visualizes a 90-percent increase in agricultural production.

Bolivia was the second Latin American country—Colombia was first—to present its general economic and social development program under Alliance for Progress to the Organization of American States.

The program, submitted on January 24, covers the period 1962-71. During this time the Bolivian Government hopes to increase per capita income by more than 50 percent in order to achieve an annual rate of growth of 8 percent in the gross national product, to raise the living standard by at least one-third, and to give work to those presently unemployed or underemployed.

To meet these goals, Bolivia plans a gross capital investment of $1,300 million during the decade, $400 million of which it hopes to obtain from abroad.

Specific targets include a 90-percent increase in agricultural production, mainly through use of about a million acres of presently idle land and the construction of about 2,000 miles of roads. Mining, manufacturing, and oil production are to be increased. Aid to education will raise school enrollment from the present 30 percent to 70 percent of the country's school-age population. The plan also proposes a tripling of total exports.

Top priority will be given to a rehabilitation of the mining industry, a task already started through the "Triangular Operation," utilizing aid of some $38 million from the United States, West Germany, and the Inter-American Development Bank.

Ambitious Plan

Bolivia has requested the Organization of American States to appoint a committee to evaluate the plan and recommend financing for it. Such committees are provided for in the Charter of Punta del Este and consist of up to three members from the Panel of Nine top-level experts elected last December by the Inter-American Economic and Social Council and an equal number of outside experts named by the OAS Secretary General in agreement with the government concerned.

The 10-year plan is an ambitious one and will require the maximum coordination of effort, capital, and labor. However, the country's resources are vast and promise much in terms of future development. Limiting this development are the meager transportation and communication facilities, the lack of qualified technical personnel, and the general low level of education.

Although mining, largely tin, supplies 90 percent of the exports, agriculture provides the livelihood of almost two-thirds of the people. Even so, Bolivia is a deficit agricultural producer, importing one-third of its food supply. Per capita food intake amounts to only 1,880 calories per day—the lowest in South America—and total agricultural output, which has risen very slowly in recent years, has not kept up with the population rise. Thus, one of the most urgent needs in Bolivia is a sharp and rapid increase in agricultural production.

Agricultural Areas

Most of Bolivia's people live on the high Altiplano, which is not well suited to agricultural production. The lower elevations, which have the potential for agricultural expansion, are great distances from the population centers. Wheat, barley, alfalfa, quinoa, vegetables, and beans are grown on a subsistence basis near Lake Titicaca in the northern Altiplano, and hardy cereals and potatoes are grown on the nearby hillsides. Sheep, llamas, and alpacas graze in this area. Although there are a few cattle, hogs, and donkeys near the villages, these animals are not suited to the sparse pastures, cold climate, and high elevation. Despite these difficulties, about 80 percent of Bolivia's agriculture is in the Altiplano.

A second region, the Montaña, including the valley and mountain lands descending from the Altiplano to the plains, furnish 40 percent of the agriculture. Part of the Montaña produces largely subsistence crops, but cacao, coca leaves, and coffee are of commercial importance. A large part of the country's vegetables and temperate and tropical fruit is grown in the Cochabamba Valley areas.

The Llanos, or eastern lowlands, are least developed and probably have the greatest agricultural potential. Commercial rice and sugarcane operations highlight the agriculture of the Santa Cruz Plains in this area; and significant quantities of corn, bananas, citrus, manioc, fibers, and oilseeds are grown, together with small-scale dairy, beef, and pork enterprises.

Previous Programs

Bolivia has already initiated certain programs to develop its resources. An agrarian reform law enacted in 1953 stimulated agricultural production through the redistribution of under-exploited land in large holdings to landless workers. A 1956 stabilization program reduced the rate of inflation, then considered one of the highest in the world. And over the past two decades, Bolivia has had both economic and technical aid from the United States and various international agencies.

The impact of these programs and of this aid is still limited but they do provide some basis for future progress. Important transportation links have been built to make the new agricultural sections more accessible to population centers. Considerable basic work has been done in agricultural research, and education. And the production of two important crops, rice and sugarcane, has expanded.

Much, however, still remains to be done before concrete results in the form of higher agricultural output can be realized. Bolivia is still extremely deficient in capital and in technical personnel, both very necessary to the ambitious goals envisioned. So it will probably be toward the end of the 10-year period before per capita production will show an upward trend.

President and Mrs. Kennedy and President Romulo Betancourt of Venezuela watch the Felix Mijares family leave the platform after receiving title to a plot of farm land from President Kennedy when he was visiting there in December.

Photo courtesy U.S. Information Agency

Land and the Latin American Farmer

Land ownership is a fundamental problem throughout Latin America. In this area of the world's highest birthrate, a centuries-old pattern of land tenure is being subjected to mounting pressure for employment, land, and food.

The governments of the Latin American countries are increasingly aware that land ownership must be broadened to provide land for the growing number of landless, or underemployed, and incentive to produce more. Few of them question the need for land reform; most are looking for the most acceptable, efficient, enduring, quickest, and least expensive way to go about it.

No solution will be easy, painless, nor what is more important—quick; nor could it be: the system of land ownership has been part of the way of life for 400 years. Latin Americans call the system *latifundia-minifundia*; large landholdings, as opposed to small uneconomic farm units.

Much of Latin America's good land is concentrated in the hands of relatively few owners. From these large holdings come the big export crops for which Latin America is famous—sugar, coffee, wool, meat, and timber. Owners of such large estates are understandably reluctant to give up what has been theirs for so long.

The bulk of the people do not own land, but are tenants, sharecroppers, and squatters. Serious underemployment and a low standard of living are common among these *minifundistas*.

Many have been forced off the land and have drifted to the cities, where they have been unable to find work. Latin American leaders feel that until sufficient industry can be developed to absorb these people, they must be attracted back to the land.

In February of last year, Bishop Dom Elder Camará of Brazil said, "The place to begin the solution of slum conditions in Rio and all of the major cities in Brazil is the interior of Brazil. We must bring about social and economic reforms within the interior, so as to give rural people hope for the future."

The Problem of Productivity

Agricultural productivity per man is low on both large and small farm units.

Although a number of the large estates are efficiently run, with modern methods and sufficient reinvestment of capital for development, many are underutilized, despite their access to entrepreneurship, capital, and technology. The 1950 census in one country showed the breakdown for large-estate land use to be: 86 percent in natural pasture and forest, 4.7 percent in cultivated pasture, and 3.8 percent under crop cultivation. Only one-fifth of the crop area was under crops, the rest being left in fallow.

The average *latifundium* produces almost entirely for export, produces little to meet the increasing needs of domestic consumption. Few profits are reinvested in the estate, or in the country.

National governments, too, have huge holdings, most of which are not being cultivated. In general, these are but slowly being offered to individual farmers.

The *minifundista* cultivates as much of his land as possible, leaving little to lie fallow. Because of the quality of his land, production is low and almost entirely for subsistence. Tenants, sharecroppers, and squatters have little incentive to improve the land, even if they possessed the technical knowledge and the equipment necessary.

Credit institutions prefer to lend money to landowners, and so the small

farmer usually has recourse only to money-lenders and local merchants who offer credit at exorbitant terms.

The need for greater productivity, coupled with the growing concern for the welfare of the rural people, has resulted in increased attention to agrarian reform and development in almost all Latin American countries.

"Land to the Tiller" Not Enough

Current programs attempt to do far more than give "land to the tiller." With few exceptions all recognize that newly established farm units must be buttressed by an adequate road system, irrigation, buildings, equipment, credit, marketing, and distribution facilities, and fundamental social public services.

Mexico, first of the Latin American countries to carry out land reform on a large scale, was also first to put this larger concept into practice. Since 1917, land reform has been a basic part of the Government program in Mexico. To date about 98 million acres have been distributed to approximately 1.6 million people. Even so, there are numerous farmers and farm workers with no land of their own, and agrarian reform still goes on. About one-half million to 1 million farmers have qualified for grants of land for whom no land is available in the area where they live.

Most land reform programs in Latin America use one, or a combination, of three methods: Government sale to individuals of parcels of public land, or of private land expropriated and paid for by the government . . . colonization of new land . . . or land taxes which penalize underutilized land and encourage its sale.

Since only 5 percent of Latin America's land area is under cultivation, it is understandable that, in those countries with unused land, government programs sometimes avoid expropriation as a means of obtaining land for landless farmers, and lean toward colonization. However, land for colonization usually requires heavy capital expenditures for development. Several countries are making progress in colonization programs despite the difficulties.

Agrarian reform increasingly assumes a dominant position in the social and political life of Latin America. José Figueres, former Costa Rican President, has said: "The great issue of Latin America is that of once-dormant peoples struggling upward to the sun, toward a better life."

How 7 Latin American countries are attempting to meet "the great issue" is outlined in these brief analyses of land reform programs.

Brazil

34.5% of the farms are under 25 acres and occupy 1.3% of total farming land. .1% of the farms are over 25,000 acres and occupy 19.4% of total farming land.

Third largest nation in the Western Hemisphere, Brazil until recently confined its land reform largely to colonization of some of the 3 million square miles of land still unoccupied except for a few cattle herders and Indian tribes.

In 1951, responsibility for land development was concentrated in the National Commission for Land Policy. The Commission established regulations for expropriation and redistribution of lands in irrigable areas in dry regions. It also recommended norms for rents and land tenure, and established regulations for facilitating title procedures.

The Commission set up the Institute of Immigration and Colonization in 1955 to finance resettlement of Brazilians in planned agricultural communities. Some 35 of these have been started, but few have achieved more than subsistence-level farming.

Probably the most successful colonization is being carried out by settlers from Japan, Italy, Germany, and the Netherlands, some 7,000 of whom have moved in each year for the past few years.

A key factor in the resettlement program has been the National Bank for Economic Development which provides capital for colonization, irrigation, farm-to-market roads, and marketing and storage facilities.

The agrarian reform program proposed by the new Administration gives somewhat stronger emphasis than heretofore to such aspects as expropriation and indemnization of land and optimum size of holdings. This may indicate a certain trend away from past dependence on colonization as the principal answer to Brazil's rural land tenure problems.

Chile

62.8% of the farms are under 50 acres and occupy .2% of total farming land. .5% of the farms are over 12.355 acres and occupy 48% of total farming land.

Until recently, land reform has not had much attention in Chile, despite concentration of most good land in the central regions in large holdings and the pressure of Chile's annual 2.5 percent population growth. Chile is one of three Latin American countries whose principal export is nonagricultural, so that primary emphasis has been on the development of minerals and industry.

In principle, Chilean land reform dates back to 1928 when the Agricultural Colonization Bank was formed to facilitate colonization of public lands and land purchased by the government. Between then and now, the Bank has acquired about 2.4 million acres of public and private lands for settlement. Approximately 3,250 colonists have been settled on 1 million acres. Most of the 1.2 million acres now available are located in areas where settlement depends upon development of irrigation, or transportation.

During 1959 and 1960, the Bank largely concerned itself with subdividing a half million acres into about 1,600 farms with size dependent upon soil fertility, water resources, and other production factors. Roads were built, and fences and buildings erected. These farms are now ready for sale to those who do not now own land. Down payments are small and the remainder can be paid over a maximum period of 30 years. The Bank planned to subdivide an additional 802,000 acres in 1961.

The three major Chilean political parties are now studying a program of land reform to be presented to Congress for legislative action. Reportedly, expropriation procedures contemplated under the plan will provide maximum protection to fully utilized farms. Underused farms, or those otherwise operated ineffectively, are to be subject to expropriation first.

Colombia

56% of the farms are under 12 acres and occupy 4% of total farming land. 1% of the farms are over 1,235 acres and occupy 31% of total farming land.

(Continued on page 24)

Peru Builds for Its Children

Photos courtesy Great Plains Wheat

The building above shows what people poor in money but rich in human resources can do for their children. It is a lunchroom built by the citizens of Leticia (a low-income area in Lima, Peru) for their hilltop school.

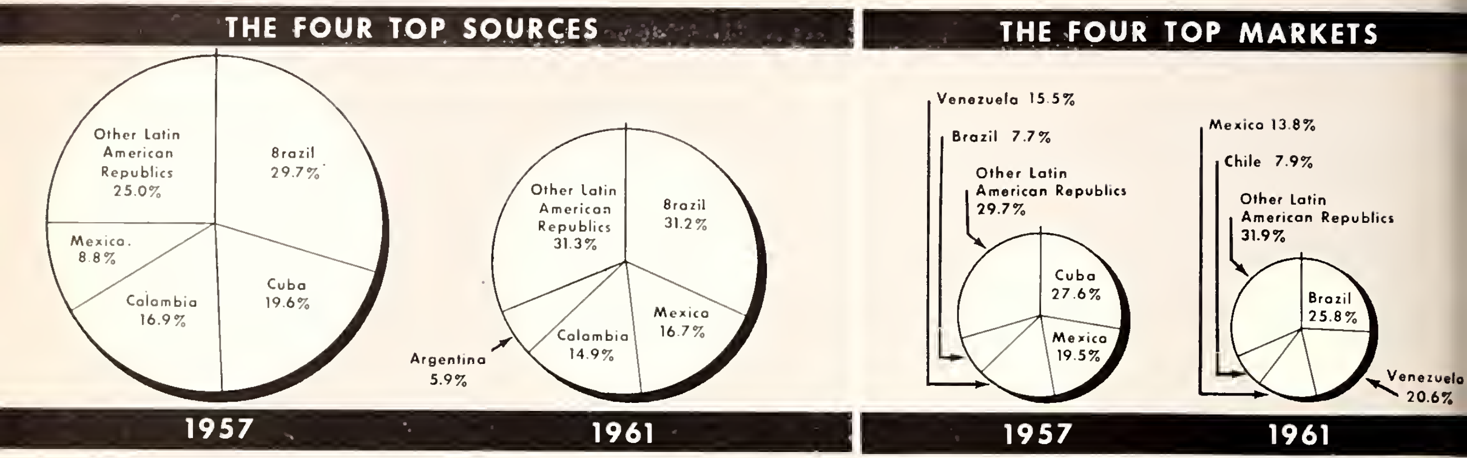
Here the Leticians are demonstrating how a model school-lunch program should operate. This pilot project is a joint effort shared by the community, the Peruvian Government, and Great Plains Wheat, Inc. (in partnership with USDA's Foreign Agricultural Service).

The people have raised money for land, materials, furnishings, and water supply and have given all the labor; the mothers prepare and serve the food. The Peruvian Government donates its basic school-lunch foods and keeps a medical check. Great Plains Wheat obtains "trigor" wheat and other U.S. foods under a Food-for-Peace grant; supervises the program; and provides trained advisers to assist the Leticians.

Above left, the finished building, with the children already pouring into it; right, how the town helped build the lunchroom; below, the Great Plains dietician explains the plans.

Below left, a member of the Leticia Mothers' Club serves students the typical model school lunch meal that other club members (like the one at right) prepared.

Our Shifting Agricultural Markets and Sources in Latin America



Our Agricultural Trade With Latin America

By JUAN JOSÉ VALLDEJULI
Regional Analysis Division
Economic Research Service

Population in the 20 Latin American republics is growing faster than in any other area of the world. By 1970, it is expected to total 270 million, 70 million more than today.

Not only will there be more people, but a larger portion of them will live in cities. This growing shift from rural to urban areas means Latin Americans will have to buy a larger part of their food and fiber. Since short-term advances in mechanization and farm technology can be all but ruled out, much of this added agricultural consumption will be in the form of imports.

U.S. agricultural exports reached a peak value of $531 million in 1957. Since then, they have decreased, largely because of the sharp drop in trade with Cuba, our best Latin American market in former years.

Causes of Decline

Our exports of agricultural commodities to Cuba accounted for over 28 percent of our total agricultural shipments to Latin America between 1955 and 1959 but fell to just over 2 percent in 1961 and are expected to disappear completely this year.

The U.S. export decline also traces its origin to the increased competition and depressed prices resulting from larger world supplies of the products Latin America has to sell. The accompanying trade deficits reduced exchange reserves and contributed to inflation in many countries. As a result, such restrictive policies aimed at maximizing exchange earnings as high import duties and license requirements were imposed in an effort to correct the disequilibrium in balance of payments. From a 1957-58 balance of payments deficit, the Latin American republics changed to a small surplus by 1959-60.

U.S. exports have been further restricted because most countries have instituted programs to increase self-sufficiency by finding substitutes for imported agricultural products.

But, in spite of the downward trend in trade with Latin America, the area still supplies half the total value of our agricultural imports and takes more than 8 percent of total U.S. agricultural exports and there are strong indications that trade will grow further in the future, partly because of the largely complementary nature of U.S. and Latin American agriculture.

What We Sell

During the 1950's the trend of U.S. agricultural exports to the 20 Latin American republics was irregular. From an average of $450.3 million in 1950-54 the value climbed to $531.4 million in 1957. Then there was an overall decline reaching $434.5 million in 1961. However, if Cuba were removed from this picture, the results would be different: A $304 million average during 1950-54 and an estimated $424.7 million in 1961.

Exports of individual commodities fluctuated also. Variations in exports of wheat and wheat flour were great, due to the variable volume of Public Law 480 sales and donations. From 20.8 percent of total U.S. exports to Latin America in 1957, this commodity dropped to 17.9 percent in 1958, and climbed to 27.4 percent in 1960. Exports of dairy and poultry products remained around 7 percent. Lard, on the other hand, fell pretty steadily—from 6.2 percent to 5.2 percent—but held up during 1958-60. Milled rice, which had gone up from 7.5 percent in 1957 to 9.6 percent in 1958, sagged badly to 5.2 percent in 1960.

In 1961, nearly 80 percent of our total exports went to six countries: Brazil, 25.8 percent; Venezuela, 20.6; Mexico, 13.8; Chile, 7.9; Colombia, 5.8; and Peru, 5.8.

Looking at trade from the other side of the fence, nearly half the $1,200 million worth of agricultural com-

modities Latin America imports each year comes from the United States. The proportion varies from country to country. In Argentina, agricultural imports from the United States made up only 3.2 percent of the total in 1959, while in Mexico they made up 76.9 percent and in Haiti, 79.2 percent.

Wheat and wheat flour are Latin America's principal agricultural imports valued at $263 million in 1959, the latest year for which figures are available. The United States supplied about 45 percent of that total and Canada, 10 percent; Argentina supplied most of the rest.

Other important Latin American imports include dairy products (where the Netherlands and Canada are top competitors), lard, rice, and barley.

What We Buy

U.S. agricultural imports from the 20 Latin American countries amounted to an average of $2,218.8 million, or 49.3 percent of total U.S. agricultural imports, during the period 1950-54. In 1961, the estimated imports were down to $1,553.8 million. Absence of imports from Cuba (about $415 million a year in 1956-59), coupled with net reductions from the 1950-54 average of over $440 million from Brazil, Argentina, and Colombia, more than account for the total decrease.

The main Latin American suppliers in 1961 were Brazil (31.2 percent of the value), Mexico (16.7), and Colombia (14.9).

The United States now buys a smaller portion of its coffee, sugar, and wool from Latin America than it did 10 years ago but an increasing percentage of bananas and cacao. During 1960, the Latin American republics supplied practically all the bananas, 87.1 percent of the coffee, 72.9 percent of the raw sugar, 49.4 percent of the cacao, and 18 percent of the wool imported by this country.

Viewed from the other direction, the United States is Latin America's most important foreign customer for agricultural products. In 1959, this country bought $2,000 million of their $4,500 million worth of farm exports.

Economic Integration

There are several other forces and events affecting trade but their influences are more difficult to assay. Hemisphere cooperation under the Alliance for Progress is expected to stimulate economic development, improve income levels, and foster increased demand for foods and fibers. More trade among the Latin American countries will result from the free trade areas and common markets now getting underway there.

Two regional trade groups have been organized in Latin America: The Latin American Free Trade Association (LAFTA) and the Central American Free Trade Association (CAFTA). In addition, eight of the countries are members of the General Agreement on Tariffs and Trade (GATT) and five have bilateral trade agreements with the United States.

LAFTA was created by the Treaty of Montevideo, signed in June 1960 by Argentina, Brazil, Chile, Mexico, Paraguay, Peru, and Uruguay. Colombia and Ecuador joined later. The treaty envisions free trade within the area for most items by 1974. The most important agricultural items involved are wheat and flour, coffee, lumber, fruit, sugar, cotton, cattle, cacao, fats and oils, and yerba maté.

The Central American countries have taken various steps toward forming a common market and integrating their industries. Among the more important steps taken was the 1961 General Treaty of Central American Economic Integration, an arrangement to create a common market in 5 years.

The Central American republics are also bound together in the Central American Bank for Economic Integration and the Central American Agreement on the Equalization of Import Charges.

The short-run effects of economic integration may cause a further decrease in U.S.-Latin American trade but, in the long run, it should help this trade. By encouraging competition and intra-regional exchange of goods, integration could provide greater scope for economic division of labor and allocation of resources and bring about rising living standards through increased productivity. The trend may also increase political and financial stability in a part of the world faced with a population boom and plagued by inflation and currency depreciation.

The U.S. Share in Latin America's Farm Trade, 1959

FARM IMPORTS FROM THE U. S. BY THE 20 REPUBLICS

(% of their total agri. imports and value in millions of dollars)

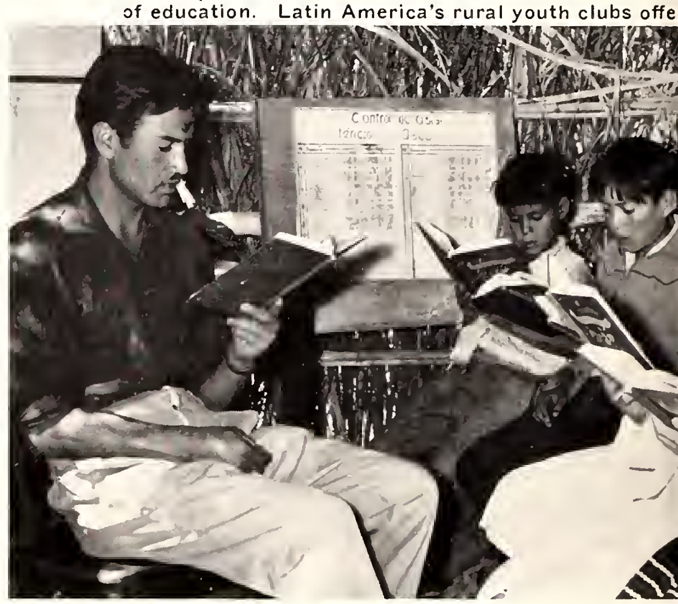
FARM EXPORTS TO THE U. S. BY THE 20 REPUBLICS

(% of their total agri. exports and value in millions of dollars)

CROPS. Like U.S. farm boys and girls, those in Latin America like to raise new crops and develop new farm skills. Right, a demonstration of contour planting, Ecuador. Left, top to bottom: Hybrid corn, Nicaragua; vegetables, Guatemala; grafting grapefruit, Paraguay.

Rural Youth Clubs

These quiet, attentive Bolivian schoolchildren seem t
of education. Latin America's rural youth clubs offer



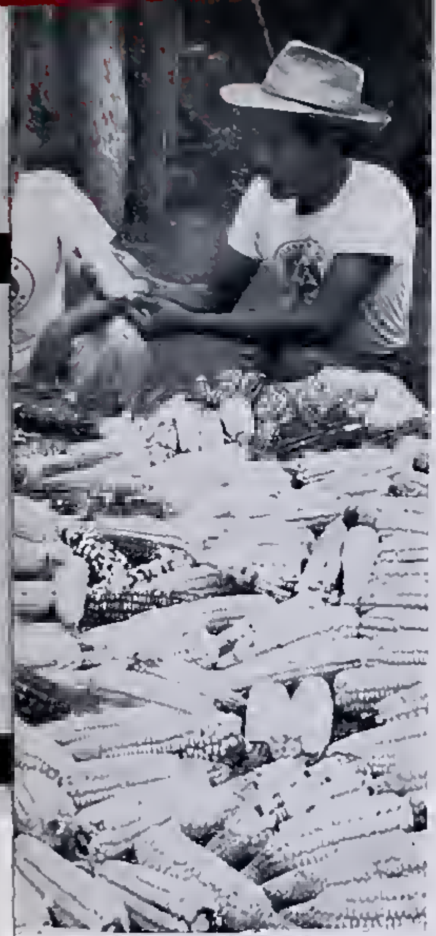
CLASSES. All the young people in the three pictures at right are absorbed in the learning process. The Argentine girls are learning to sew; the Peruvian girls, to cook; the Argentine boys, to transform an old packingcase into furniture.

in Latin America

ize the central importance
her opportunities to learn.

LIVESTOCK. Right, the innocent smile of success illumines a little Brazilian poulrywoman's face; above left, Chilean farm club leads in an area-wide campaign against hoof-and-mouth disease; above right, Argentine boys find both profit and delight in raising rabbits.

Most of these pictures originally appeared in the Ford Motor Company's "Anuario para la Juventud Rural de las Américas," 1960. Others were supplied by U.S. agricultural attachés and their host countries.



CROPS. Like U.S. farm boys and girls, those in Latin America like to raise new crops and develop new farm skills. Right, a demonstration of contour planting, Ecuador. Left, top to bottom: Hybrid corn, Nicaragua; vegetables, Guatemala; grafting grapefruit, Paraguay.

Rural Youth Clubs in Latin America

These quiet, attentive Bolivian schoolchildren seem to realize the central importance of education. Latin America's rural youth clubs offer further opportunities to learn.

LIVESTOCK. Right, the innocent smile of success illumines a little Brazilian poulrywoman's face; above left, Chilean farm club leads in an area-wide campaign against hoof-and-mouth disease; above right, Argentine boys find both profit and delight in raising rabbits.

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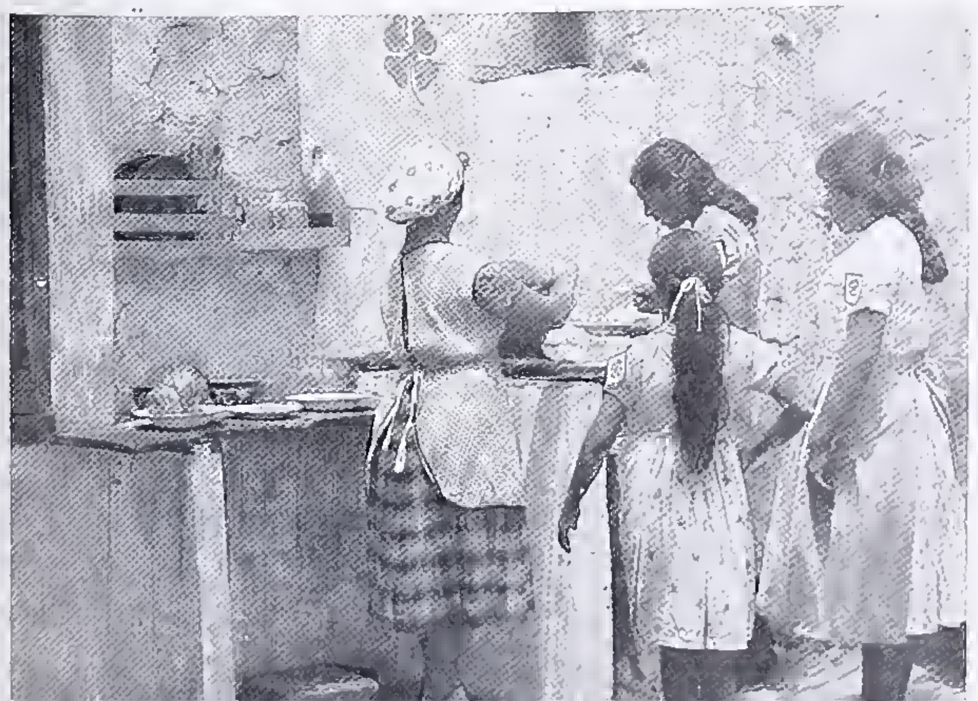
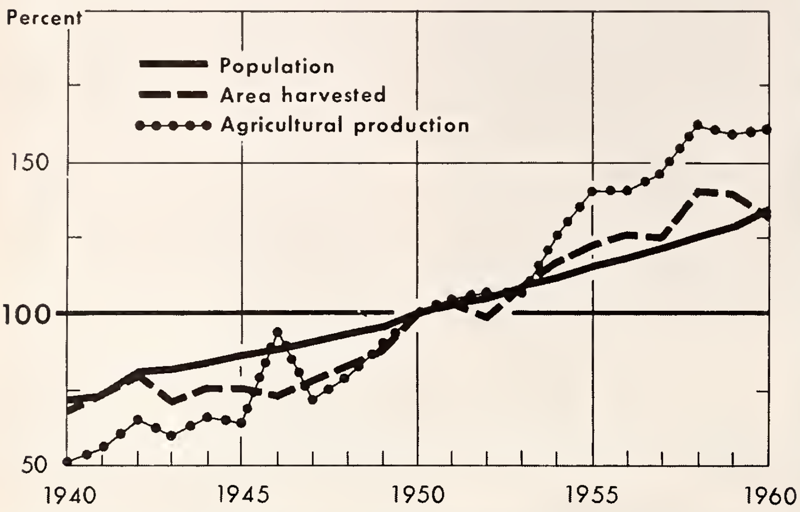


In Mexico, Farm Area and Output Are Increasing Faster Than Population



Mexican Agriculture Makes Rapid Progress

By ANA M. GOMEZ
Assistant U.S. Agricultural Attaché, Mexico City

Despite growing industrialization, agriculture is still the basis of the Mexican economy. During the past decade, a 62-percent increase in production has made agriculture an even more important factor in Mexico's economic development.

The increase permitted a rise in per capita food consumption even though population grew 35 percent in this period. It supplied raw materials for a developing domestic industry and an increasing surplus of agricultural commodities for export. In 1960, these commodities represented 54 percent of all exports and the value of agricultural exports was four times that of agricultural imports. The resultant foreign exchange paid for much of Mexico's heavy importation of the machinery and equipment needed by industry.

In 1957-58 and 1958-59, Mexico's agricultural and livestock production rose faster than that of any other Latin American country both in total and per capita output. Unfavorable weather in the next 2 years caused a drop in Mexico's relative position, but the country is still one of the Hemisphere's leaders in agricultural development.

Mexico's remarkable progress has been the result of an increase both in area under cultivation and yield per unit of area. Between 1950 and 1960, the area harvested rose 32 percent, which kept pace with the population growth during the decade. On the other hand, a more efficient use of the resources available resulted in an increase in yields and a rise in total agricultural production which greatly exceeded the population growth.

Principal Crops Way Up

Noteworthy increases in output have taken place in such important crops as corn, beans, wheat, cotton, coffee, sugarcane, rice, alfalfa, tobacco, and peanuts. Production of wheat, beans, and tobacco more than doubled during the decade and that of the other crops mentioned increased by more than 50 percent. Higher production of coffee, sugarcane, peanuts, and alfalfa was due principally to increased area. Higher yields per unit of area were a considerable factor in other major crops, such as wheat, beans, corn, rice, cotton, and tobacco.

Wheat is an outstanding example of the progress achieved by Mexican agriculture. In 1950, Mexico produced 21.6 million bushels of wheat on an area of 1.6 million acres. A wheat deficit of 15.6 million bushels had to be met by imports from abroad. Ten years later, Mexican production of wheat amounted to 43.7 million bushels from an area of 2.1 million acres, and imports were negligible. Consumption requirements were met from current production as well as from stocks remaining from even larger production the preceding year.

Doubling the wheat output in 10 years resulted from a 30-percent increase in area harvested and a 56-percent higher yield per unit of area. Whereas in 1950 only 13.6 bushels were obtained per acre, by 1960 the yields had risen to 21.1 bushels per acre. This is comparable to wheat yields in the United States.

The development of rust-resistant varieties was a major factor in improving wheat yields. These improved varieties have by now almost entirely replaced the old varieties which were highly susceptible to rust, especially in the newly irrigated areas. A rapid expansion in the use of fertilizer has also contributed greatly.

Mexican wheat improvement has been so successful that Mexico has become a world leader in the program. Several wheat varieties bred under the program during the past 10 years have been introduced with highly satisfactory results in other Latin American countries as well as in the Middle East and in Africa.

The increased production of beans has also been of great importance. One of the leading foods in the Mexican diet, it is second in importance among Mexican crops in area planted. Output has risen from 5.5 million bags in 1950 to 12.9 million bags in 1960. During this period there has been an increase of 35 percent in area and of 74 percent in yields. The average yield rose from 230 pounds per acre to 400 pounds per acre.

This significant rise resulted from a bean improvement program which provided new varieties with higher

yields and disease resistance and utilized such cultural techniques as increased use of fertilizer, better insect control, and a larger area planted to beans as an independent crop instead of intertilled with corn. Annual per capita consumption of beans increased from 22 pounds in 1950 to 40 pounds in 1960, of which only 4 percent represented imports. This was an 80-percent rise in consumption per person for the period.

Cotton and Corn

Better cultural practices—especially improved insect control and greater fertilizer use—largely accounted for an 81-percent rise in cotton output between 1950 and 1960. Cotton has become third in importance among Mexican crops in area planted, and second only to corn in value.

The area planted to cotton rose 19 percent during this period and yield per unit of area went up 52 percent. The average yield went from 305 pounds per acre in 1950 to 463 pounds in 1960.

Cotton is Mexico's leading export commodity. In 1960 it represented 16 percent of the value of all exports and 30 percent of agricultural export value.

Corn is still the most important crop in Mexico both in area planted and in value. A considerable increase has taken place in corn production in recent years, although it has not been as rapid as it has been in the case of wheat, beans, or cotton.

Improvement of average yields has proved more difficult in the case of corn than in other leading crops. Corn is grown in areas of deficient rainfall to a much greater extent than other major crops. Also, since it is the principal food in the Mexican diet, it is widely grown by subsistence farmers who are sometimes slow to accept improved techniques, or lack the resources to adopt them. Nevertheless, corn production rose by 67 percent from 1950 to 1960. There was an expansion in area of 28 percent during this period and yields rose by 30 percent. The average yield increased from 11.3 bushels per acre in 1950 to 14.9 bushels per acre in 1960.

Changes in Area, Yield, and Production of Mexico's Principal Crops, 1955 and 1960

Index numbers (1950=100)

Crop	Area		Yield		Production	
	1955	1960	1955	1960	1955	1960
Corn	124.1	128.2	116.0	130.0	143.8	166.6
Beans	122.4	134.7	146.1	174.0	179.3	234.4
Cotton	139.3	118.9	140.4	151.8	195.6	180.5
Wheat	124.1	130.3	116.6	155.5	144.7	202.6
Coffee	133.8	175.4	106.0	106.8	141.8	187.5
Sugarcane	140.4	172.8	105.8	109.9	148.7	189.7
Barley	104.8	106.5	113.1	106.5	118.4	113.5
Sesame	104.8	111.3	125.9	116.0	114.1	129.3
Henequen	108.7	121.1	100.0	121.9	108.8	147.8
Chickpeas	101.9	121.9	109.4	112.4	111.4	136.9
Rice	90.2	134.3	124.6	130.6	112.4	175.4
Oats	109.2	122.8	108.8	117.9	119.1	145.0
Alfalfa	106.3	177.2	100.2	108.6	106.6	192.6
Peanuts	110.9	137.7	114.1	109.6	126.7	151.2
Tomatoes	110.8	111.7	93.8	90.6	103.9	101.2
Oranges	106.7	113.7	101.0	108.2	107.2	123.0
Tobacco	124.3	152.9	122.3	136.0	151.7	208.0

Based on data from *Dirección de Economía Agrícola*, Ministry of Agriculture and Animal Industry.

Among the important developments which have made possible the rapid progress of Mexican agriculture during recent years, one of the most notable has been the expansion in the irrigated area.

Since 1946, the Ministry of Hydraulic Resources, a separate department, has been in charge of the development of the country's water resources. Through this program, large areas which were formerly desert have become highly productive agricultural regions. The most outstanding example of this development is the northwest region which now produces almost half of the total output of wheat and is the leading producer of cotton.

Expanded Irrigated Area

During the period from 1950 to 1960, the area irrigated through Federal Government projects rose from 3 million to 6.7 million acres, an increase of 127 percent. The area irrigated privately through wells and small dams also expanded in that period, but statistics are not available on these projects. They are of less importance than Federal projects. Since the total area harvested increased during the decade from 21.2 million acres to 27.9 million acres, the proportion represented by the area irrigated through Federal projects rose from 14 percent of the total area harvested in 1950 to 24 percent in 1960. Production in this government-irrigated area for the latter year represented 33 percent of the total agricultural production.

Aids to Agriculture

But the sharp rise in yields which has characterized Mexican agriculture during the past decade would not have been possible without agricultural research. The Mexican Ministry of Agriculture (with whose research programs the Rockefeller Foundation has cooperated since 1943) has developed improved varieties of many of the leading crops and better production practices. These have played a significant role in the development of the country's agriculture.

Several governmental and private agencies have spread information on modern methods to the farmers. The Ministry of Agriculture established an agricultural extension system in 1953, and two governmental banks have provided technical assistance. Production of individual crops has been promoted by such organizations as the National Corn Commission, the Mexican Coffee Institute, and the Institute for the Improvement of Sugar Production. A number of private commercial firms, too, have been active in disseminating information.

Financing increased agricultural production required a large expansion in credit facilities. Credit from private sources has increased steadily during the past decade. This includes not only loans by private banks and

money lenders, but also credit from suppliers of inputs, such as fertilizers and insecticides, as well as from processors and exporters of agricultural commodities. Governmental banks are now supplying about one-fourth of the total volume of credit available for agriculture in Mexico.

Among other aids to agricultural development are the price support program, principally for corn, wheat, and beans; protection of domestic production through high duties and the licensing of imports; a large expansion in storage facilities; and a crop and livestock insurance system, in operation since 1955.

Faster Farm Development

Although the progress achieved by Mexico in agricultural production since 1950 has been remarkable, the country has not yet solved the problem of adequately feeding its people.

According to USDA's "World Food Deficit," Mexico was among seven Latin American countries in 1958 with an average level of food consumption exceeding the standard of 2,500 calories per person per day. The estimated daily per capita consumption of 2,725 calories, however, represents an average for the country. There are still segments of the population whose consumption is below standard, both in number of calories consumed as well as in the protein, vitamin, and mineral content.

The problem of providing an adequate diet for all is made considerably more difficult by one of the highest rates of population growth in the world today. Population experts forecast a total of 46 million inhabitants for Mexico in 1970, an increase of 32 percent over the 1960 population of 34.9 million.

Raising food consumption to a satisfactory level, despite such a rapidly growing population and competing demands from other sectors of the economy, presents a great challenge. If the country is to produce sufficient food to meet this goal, while at the same time maintaining its position as an exporter of agricultural commodities, agricultural development will have to proceed in the future at an even faster pace than in the past.

Colombian Believes Cattle Industry Can Beat Problems, Raise for Export

Cattle are Colombia's "coming" export, according to Nicolás Mora Dávila, Colombian Cattle Producers Confederation executive.

In an interview with Henry Hopp, U.S. Agricultural Attaché at Bogotá, Señor Mora stated: "Cattle production is the single most important factor in Colombia's economic development."

"In addition to the domestic market," he went on, "it has possibilities for export, and can become an important source of foreign exchange to a country sorely in need of export diversification."

Señor Mora emphasized Colombia's rank as third largest cattle country in South America, fifth largest in the Western Hemisphere. (The United States leads with 96 million head, Brazil is next with 73 million, Argentina 43.5 million, Mexico 21 million, and Colombia 15.4 million.)

He believes Colombian cattle production can move into fourth place in the Hemisphere. The more optimistic among Colombian cattlemen may even be eying third place.

Señor Mora points to Colombia's total land area of 114 million hectares of which only 35 million are now devoted to cattle production. Irrigation, drainage, river control, and construction of roads and ditches could double present pasturage.

In addition, he feels Colombia's location at the top of South America makes potential markets accessible in the United States, Venezuela, and such European countries as West Germany, and the United Kingdom.

However, despite Colombia's self-sufficiency in meat production for domestic use, it has not yet achieved the surplus necessary for appreciable export. Señor Mora, though optimistic, felt Colombia's cattle producers were quite aware of the many problems which must first be overcome before their goal of exports can be reached.

The cattlemen admit the majority of their number lack basic education in farm management, do not keep adequate books, and produce on too small a scale to make economic producing units. The growth of the cattle population is far below possibilities. The calving rate is cut by inadequacies in range management and nutrition.

The cattlemen are traveling abroad in increasing numbers to study better systems of livestock production. Within Colombia, U.S. AID and Rockefeller Foundation experts are working closely with Colombian officials and cattlemen. These, and the Cattle Producers Confederation operating through its various organizations, are trying to provide elements of the kind of extension service carried on in the United States by the government.

Both in milk and meat herds, the cattlemen have improved their farms, established grasses, improved administration, and carried on trials with concentrates and lot feeding. They have imported many quality cattle from the United States and Canada.

Attention, too, is being given to improvement of the soil, which generally needs mineralized salts, phosphorus, and other minerals. This is particularly important, since most Colombian cattle are grass fed.

The biggest problem, according to Señor Mora, is capital and credit. Colombia is now trying to obtain a $20 million loan from the World Bank for development of the cattle industry.

The government has authorized the Colombian Cattle Bank to develop its own financial system through obligatory subscription of stock by the cattlemen. This is a system already in effect in the various Departments (or States). These *fondos*, or funds, give credit in kind to the small and medium landowner. However, credit for these rural activities is still scarce and short term.

Colombian cattlemen feel development of the cattle industry would also bring with it expansion of the meat packing and processing industries with increased earnings for low-income workers. They believe this aspect should recommend itself to the Alliance for Progress program with its emphasis on national efforts to raise living levels of the underprivileged.

Old Crops, New Crops In the Tropical Americas

Photos courtesy Pan American Union

Coffee and cotton are vital export crops for Latin America but supplies of both are currently in excess of world demand.

By ARTHUR G. KEVORKIAN
Sugar and Tropical Products
Foreign Agricultural Service

Latin America is the home of many of the world's important agricultural commodities. Rubber, cacao, vanilla, allspice, pineapple, coconut—these are some of the tropical products that are indigenous to the Americas. And to this list could be added such Temperate Zone crops as corn, potatoes, tomatoes, squash, cotton, and tobacco.

Today these crops are grown all over the world. Some—tobacco, cotton, and corn, for example—are still being produced in Latin America in sufficient quantities not only for domestic use but for export. Others have been improved through selection and hybridization and adapted to new environmental conditions for large-scale production. We find rubber prospering in Malaya and other parts of the Far East and not enough grown in Brazil, its original home, to satisfy domestic needs. Cacao, a native of Colombia, is now a big moneymaker in West Africa but a secondary crop in Latin America.

Paradoxically, the crops that form the base of Latin America's agricultural export trade are from other parts of the world. Of the four big ones—coffee, cotton, bananas, and sugar—only cotton is a native. Coffee originated in the Middle East, bananas and sugarcane in the Far East.

How important these products are as foreign exchange earners can be readily seen from the following line-up. In Brazil, Colombia, El Salvador, Guatemala, Costa Rica, and Haiti, coffee is the No. 1 export. In Mexico, Peru, and Nicaragua, cotton leads. Ecuador, Honduras, and Panama are banana countries. In Cuba and the Dominican Republic, sugar is first.

Of these commodities, coffee, cotton, and sugar have been produced beyond world consumption. Other agricultural exports, such as wheat, coarse grains, and certain livestock products, are also in excess of world demand. Stockpiles are building up, and prices are either weakening or are at a low level.

In highly industrialized countries with diversified agriculture, surpluses are not disastrous to the overall economy. But Latin America is still largely agricultural, in that over half of its vast population depends on agriculture for a living. Furthermore, of the 20 Latin American republics, 14 depend on a single commodity for one-half or more of their export earnings, and 10 of these get 75 percent from two of their top exports.

The dollar-exchange earnings capacity of a number of Latin American countries has been seriously affected by this dependence on one or two crops that tend to be in oversupply. Part of the answer is diversification—"new" crops that will supply a source of income to compensate for the losses sustained through lower returns on the major farm products. Ever since World War II, the search has been going on, stimulated by government action and outside help.

What are these new crops? Some of them are not new at all. They're Latin America's indigenous plants that other parts of the world have profited from. Some are crops that have grown for a long time in the Hemisphere but on a small scale only. And others are new to the Americas.

Rubber. Impetus has been given to the growing of rubber by the recently evolved free trade areas or associations (LAFTA and CAFTA), which envisage the development of interrelated industries. With a number of countries now in the automotive industry—notably, Argentina, Brazil, and Mexico—rubber for tires and other accessories will be needed. Whether this need will be supplied by syn-

"Balling" rubber in Guatemala. A native crop, rubber is being pushed as a potential export and also to meet the needs of growing industries.

Carding jute by hand in Brazil. The country is now a big producer of jute and hopes to grow more.

thetics or natural latex is still a question; nevertheless, Latin America is definitely interested in rubber.

Recently Mexico sent a high-level technical mission to study the problems of natural rubber production in the Far East, with an eye to further expanding rubber production. Brazil, Guatemala, Peru, and Costa Rica are also encouraging rubber-growing.

African oil palm. The African oil palm is being promoted to meet domestic oil needs and to provide exports. Honduras, Nicaragua, and Costa Rica already have sizable acreages, and Colombia, Venezuela, and Ecuador are starting to make plantings.

Tung oil. This powerful drying agent made from the seeds of the tung tree nut is a well-established industry in both Argentina and Paraguay. The United States buys around 23 million pounds a year from the two countries.

Essential oils. Guatemala's production of citronella and lemongrass brings in considerable foreign exchange. In 1960, the United States spent $675,000 on the two oils.

Haiti's production of essential oils started during World War II and has continued to be a source of income. Several are produced, but vetiver oil, from the roots of an East Indian grass and used in perfume manufacture, is the most important. In 1960, the United States imported 45,000 pounds, valued at $557,000.

Paraguay has been a major supplier of petitgrain oil to the United States for 20 years. Increases are planned.

Tea. Tea production in the Americas is confined largely to Argentina, Brazil, and Peru. Tea acreage is being expanded, particularly in Argentina where production has mounted in the last decade from 1 million pounds to over 10 million. Brazil and Peru are also expanding but not as rapidly.

Pepper. Most of the world's pepper comes from Asia. Brazil, however, began to produce pepper in the early 1950's and, by 1960, production had expanded greatly. Exports in 1956 amounted to 165,000 pounds; within 4 years they climbed to over 5.5 million pounds.

Mexico is also producing a limited amount of pepper, and recently several Central American and Caribbean countries have shown considerable interest in it as a possible export crop.

Vanilla. Mexico is the home of the vanilla bean but the title of world's leading supplier belongs to the Malagasy Republic off the east coast of Africa. The United States buys nearly three-quarters of its vanilla from this African country. Mexico has now become a secondary source.

Several Latin American areas are considering vanilla expansion—namely, Guatemala, Honduras, and several of the Caribbean islands. With ample volcanic soils at altitudes from 1,000 to 1,500 feet and some 70 inches of rainfall per year, these areas are well suited to the growing of vanilla beans. Also, vanilla is a crop that can be grown on small family plots to provide farmers with a cash income.

Pyrethrum. Kenya is currently the world's leading producer of pyrethrum, an insecticide made from the chrysanthemum-like flowers of the same name. While several Latin American countries have experimented with it, Ecuador is the only country that exports it in any quantity. Output is still small but plans for expansion have been discussed for some time. The demand for pyrethrum has increased since it was found that extracts of pyrethrum, when added to synthetic insecticides, increases the "kill." For Ecuador's Indian farmers in the highlands north of Quito it could be a very profitable crop.

Abaca. Called "Manila Hemp," abaca was first grown in Latin America on a commercial basis in Panama, Costa Rica, Honduras, and Guatemala during World War II. These planting have been abandoned. However, Mexico is now growing abaca and is planning expansion, the rate of increase to depend on marketing possibilities which currently are rather sluggish.

Jute. In 1953 Brazil became the world's third largest producer of jute. Grown largely in the State of Amazonas, it is sufficient to meet domestic needs. Brazil has even authorized the export of 5.5 million pounds as an incentive for its farmers to produce more—though it is quite doubtful that their output will be that large.

Other Latin American countries have not tried jute as a crop but Colombia, Guatemala, and Costa Rica are growing kenaf as a bagging material.

Food in the Western Hemisphere

The Hemisphere can produce enough food to feed all its people—yet in most countries large numbers suffer from serious dietary deficiencies.

By KATHRYN H. WYLIE and HOWARD L. HALL
Regional Analysis Division, Economic Research Service

The supply and distribution of food are of increasing concern to the nations of the Western Hemisphere.

As a whole, the Western Hemisphere produces enough food to provide a well-balanced and highly nutritious diet for all its people and to export large quantities to other areas. Moreover, production is rising at such a rapid rate that 5 years hence, despite the population explosion, there probably will be more food per capita than there is today.

Yet in most of the countries of the Hemisphere, significant groups of people suffer dietary deficiencies in varying degrees. In 13 countries, people with serious deficiencies outnumber those with enough food, thus dragging the average food consumption below the minimum dietary standards considered acceptable.

Canada, the United States, and Argentina, all three in temperate zones, have the highest average level of food intake in the Hemisphere—more than 3,000 calories per day and adequate supplies of protein and fat for each of their citizens.

Expressed in terms of wheat, either the United States or Canada produces enough food to supply deficiencies in the rest of the Hemisphere and still has left large quantities for export. The United States also holds stocks of surplus foodstuffs.

Other countries, such as Brazil, Cuba, Uruguay, Chile, Mexico, and Costa Rica, either produce, or are able to import, sufficient food to supply a satisfactory diet. But all of Central America (except Costa Rica), and Haiti, the Dominican Republic, Colombia, Venezuela, Ecuador, Peru, Bolivia, and Paraguay fall below an average daily minimum nutritional standard of 2,500 calories per capita. (Daily consumption in Bolivia and Haiti averages only 1,900 calories per capita.) Regional variations within these countries are large. And in 5 years, most of them are still expected to be below the 2,500-calorie level.

The wide fluctuation within the Hemisphere stems primarily from distribution of national and individual incomes. Low food consumption occurs in countries (generally in tropical regions) with large rural populations, low incomes, and limited production of cereals, particularly wheat.

Consumption in temperate zone countries, due in part to greater food production, exceeds that of most countries in subtropical and tropical areas. Exceptions are Brazil, Cuba, Venezuela, where production is supplemented by substantial food imports.

1958 Food Levels

In 1958, the 193 million people of Mexico, Central America, the Caribbean, and South America ate foods providing an average 2,640 calories

Above, Brazilian farmer greets rural extension worker. Right, cooking demonstration in Mexico. Through such means as these the Latin American countries are trying to improve the diets of their lower income groups.

per person every day. These foods provided 66 grams of protein and 60 grams of fat. Grains (corn, rice, and wheat), pulses, and carbohydrates (sugar, yuca, and other tubers) made up about 70 percent of the total. In tropical areas bananas, plantains, and other fruits supplemented the daily diet. In the temperate zone countries, meat and animal products were important; in tropical countries, they were negligible.

Only seven Latin American countries, the West Indies, and certain European dependencies met a minimum acceptable standard of 2,500 calories per capita per day, a fat standard of 42 grams, and a total protein standard of 60 grams. Costa Rica in this group fell below the protein standard by only 1 gram. Among the other 13 countries, only Haiti fell below the animal protein standard of 7 grams per day; all were deficient in one or more standard diet elements.

Food from domestic production furnished 90 percent or more of total consumption in half of the Latin American countries. Argentina came near to producing its total requirements and, in addition, exported large quantities. Mexico was nearly self-sufficient.

Cuba, on the other hand, imported about one-fourth its total food supply, and Venezuela about 16 percent. Brazil imported two-thirds its wheat consumption. All countries imported wheat or flour in 1958, with the exception of Argentina, Uruguay, and Mexico.

If the 13 countries with substandard diets had received enough food to meet dietary deficits, they would have imported, in addition to actual imports, the equivalent of 2.5 million tons of wheat, 10,000 tons of nonfat dry milk, and 96,000 tons of vegetable oils.

Population Races Production

Latin America, whose population growth rate is higher than any other major area of the world, is expected to have at least 238 million people in 1966. Latin America will produce more by then, but probably at no more than its present per capita production level.

Total projected use of wheat (including food and nonfood use) would rise from 11 million tons in 1958 to 14.2 million in 1966. Assuming that Argentina and possibly Uruguay continue to send wheat to Europe, total imports for the region would be greater than the net difference between production and consumption of 2.6 million metric tons.

Net imports of vegetable oils would total just over 100,000 tons by 1966, imports of dry beans and peas and nonfat dry milk just under 100,000 tons each, and rice 72,000 tons.

However, to raise the dietary levels in the 13 diet-deficit countries would require doubling projected net imports of wheat (or wheat equivalents) to 5.3 million tons, and about 40 percent more imports of vegetable oils than are projected that year. Imports would have to go even higher if below-average nutritional levels within countries were raised, while consumption at higher levels remained the same. For instance, Brazil's average diet meets requirements, but the whole northeast section of the country falls far below the standard. Brazil, the Hemisphere's largest importer of wheat, will need at least 2.7 million tons in 1966 to maintain current consumption levels and would have to import far more to bring the northeast area up to the consumption of the rest of the country.

Production Equal to Needs

The Western Hemisphere, with its wide diversity of soil and climate, can produce enough food to meet even these expanded potential needs.

Canada and the United States are the traditional suppliers for most of the imports of the production-deficit countries and will probably continue to be in 1966. As in recent years, part of the total import needs will be met under P.L. 480 sales by the United States—part by Canadian and U.S. long-term credit arrangements—part by regular commercial sales. Relief shipments under other titles of P.L. 480 will be made if need arises.

Latin American land and labor potentials are largely sufficient to expand agricultural output. These resources, however, cannot be fully utilized in their present form or location without more capital. Roads are needed to make the land accessible—irrigation, drainage, fertilizer, and soil improvement practices to make the land productive. Labor must be provided with new skills and mobility.

Lack of capital, credit, education, and extension facilities now limits rapid expansion in output. Other inhibiting factors are the prevalence of one-commodity economies largely dependent on exports, faulty agrarian structures, and archaic marketing systems. In many countries, incomes and land are lightly taxed, import and export trade bear a disproportionate share of the tax load.

Higher Living Standards

Most of the larger and many of the smaller countries have development programs aimed at higher productivity in agriculture and industry. Progress has been good in several countries such as Mexico where agricultural output now supplies most basic food needs. Mexico, too, illustrates the importance of the improved education and the technical services which laid the groundwork for Mexico's recent advances in agriculture and industry.

Latin America evidences growing awareness that increased production must be coupled with a higher standard of living for all its people. This will mean sharing equitably with those at the lower end of the economic scale the goods and services growing out of the improving utilization of the Hemisphere's resources of people, land, and capital.

The basic premise of the Alliance for Progress program is that recipient nations institute the tax and land reforms necessary to achieve this end.

Venezuela has begun a land reform program, and Colombia has just enacted a major land reform measure. Peru, among others, has similar legislation under consideration. Mexico instituted land reform a number of years ago and is making a continuing effort to extend its growing prosperity to all its people.

Under the impact of reform and development programs, the Hemisphere's present food-deficit nations should be able to produce more of their food needs, and develop the purchasing power to pay for a total food budget meeting basic nutritional standards.

Central America's Chicle Keeps the World Chewing

Chicle—the dried sap of the sapodilla tree—occupies a small but secure place in world trade. Exported chiefly by Mexico and Guatemala, it has been in demand for nearly a hundred years as the preferred base for chewing gum. Major market is the United States, where about 95 percent of the world's chewing gum is made and used, though more and more people elsewhere now also choose to chew.

Chicle's introduction here goes back to the 1860's, when ex-Dictator Santa Anna of Mexico, hiding out in New York, tried to promote chicle as a rubber substitute. A flop in that capacity, it was snapped up as highly superior to the spruce gum and paraffin then being chewed.

Today's chewing gum is about 60 percent sugar, 20 percent corn syrup, and 20 percent gum base. Of the base, less than half is chicle and other natural gums; synthetic rubber and resins are now widely used. But the consensus is that gum chews best when there's chicle in it, and the more the better. No other substance has quite the same "give."

Reflecting this long-time choosiness of the chewer, U.S. gum makers still import as much chicle as they can get. Before the war, imports were rocking along at about 10 million pounds a year and gum consumption at about 100 sticks per person. But during the war, consumption zoomed, while chicle and its natural substitutes became harder to get.

In the past 5 years, United States chicle imports have averaged about 5.9 million pounds. Including leche caspi from Peru and Brazil, jelutong from Indonesia, Singapore, and Malaya, and gutta balata (chiefly from Brazil), imports of all natural gums and resins for use in chewing gum amount to some 13 or 14 million pounds a year.

Gum output is in the billions of pounds, approaching a stick a day for each American. A small part goes to foreign customers: gum shipments rose from about 7 million pounds in 1957 to over 11 million in 1960. Best markets are Canada, Mexico, and Italy, but new countries are constantly joining the ranks of chewing-gum buyers.

Tobacco Is Back in Tobago

U.S. Agricultural Officer William B. Callan, right, shows LeRoy Hodges, FAS specialist, the tobacco leaf again being grown on Tobago in the West Indies.

Thanks to the West Indies' largest tobacco company, tobacco is once more being cultivated on the tiny island where tradition says Christopher Columbus discovered the aromatic weed whose annual value to world trade now approaches the billion-dollar mark.

Columbus is supposed to have seen the natives inhaling the smoke of raw primitive tobacco through a Y-shaped tube leading into both nostrils. Nowadays, Tobagan tobacco pursues a milder course into American filter-type and English cigarettes manufactured mostly by the West Indian Tobacco Company—which controls 90 percent of West Indian cigarette production.

Oddly enough, tobacco has never really prospered on the island where it was supposedly discovered because the soil lacked the proper nutrients. Up until a few years ago, farmers produced mostly sugarcane, coffee, cacao, and copra, because these crops require the least husbandry. Then, competition from more efficient production elsewhere, combined with the onset of plant diseases and lack of care, reduced Tobago's output of cash crops and brought its people as near destitution as is possible in an area where nature supplies basic food needs and clothes are unimportant.

The West Indian company, which buys most of its tobacco from the United States, Canada, and Southern Rhodesia, is interested in Tobagan tobacco because it is not taxed, and though of neutral quality, can be used in cigarette blends.

A plantation system is being developed which is adapted to the small plots and primitive equipment available on the island. Two hundred peasant farmers are getting seedlings, equipment, and guidance. The progressive farmers are building their own drying barns. Central drying barns now handle primary curing of the crop, which is then baled and shipped to nearby Trinidad for redrying and manufacture.

One farmer has produced as high as 1,500 pounds per acre, which is comparable to the U.S. average. The usual yield is around 1,000 pounds. Considering that most tobacco is grown on mountainside patches which sometimes also play host to coconut trees and banana plants, it is surprising the yield is so high.

About 100 acres are now planted to tobacco under this scheme. Plans call for a total cultivation of from 300 to 500 acres. Current annual production is about 100,000 pounds of flue-cured and the goal is around 500,000 pounds within a few years.

The experiment is costly and the price paid for the tobacco is relatively high, but, as long as production is small enough to escape taxation, it is worthwhile for the company, and of inestimable value to Tobagan farmers.

Land, Latin American Farmer

(Continued from page 10)

Colombia's new agrarian reform law offers fresh hope to the country's one million land-poor farmers. Much of its value will depend upon the rapidity and thoroughness with which its reforms are put into practice.

Passed late in 1961, the law covers not only land redistribution, but practically every other aspect of agriculture. It has far more teeth than any previous law dealing with land reform, and provides a complete range of legal authority for agricultural development.

The aim is the family farm unit, or one that is operable at a reasonable income level by the farmer and his family. These units are to be achieved through colonization of public domain, division of tracts acquired by the government, and consolidation of rural holdings below a prescribed size.

The law also calls for governmental programs aimed at promoting irrigation, drainage, reforestation, cooperatives, improved cultural methods, marketing facilities, and similar useful advances.

Under previous programs conducted by the Agricultural Credit Bank, about 5,000 families have been established in public domain lands. Other colonization projects contain 4,000 new family-sized farms.

For the past 20 years, progress in the control of human and animal disease has permitted the opening up of lowland tropical areas. Already a large amount of the "new" land has been preempted, principally in good-sized holdings. Agricultural methods on these holdings are relatively modern. Farming is mechanized and cattle production uses the ranching technique.

Meanwhile, the bulk of the population has remained largely as it was: small farmers crowded onto eroded plots, with neither the money nor education to take advantage of the new opportunities in the tropical zones.

Another land reform technique being used in Colombia is the land tax. By taxing most heavily the land least used, the owner is impelled to use the land more intensively, or sell it. In the past, the tax system has encouraged large holdings by individuals or companies as a means of escaping taxes.

Guatemala

97.8% of farms are under 100 acres and occupy 27.8% of total farming land. .1% of the farms are over 5,000 acres and occupy 40.8% of total farming land.

Low productivity, due to technological deficiencies, and a rapidly expanding population have kept the majority of Guatemala's farmers at subsistence levels. Agrarian reform, therefore, is an important part of the country's goal of better utilization of the land.

The first agrarian reform law was passed in 1952, repealed in 1954, and replaced in 1952 by the present Agrarian Statute, which has since been slightly modified. This establishes regulations on settlement, partitioning, purchase, expropriation (and exemptions), grants, issuance of titles, and taxation of idle lands. It also covers such areas as technical assistance, credit, inheritance, a national farm system, irrigation, national reserves, unappropriated land, claims, and boundaries.

Nineteen agrarian development projects have been established on about 345,000 acres of land made available by the Guatemalan Government. Under the Agency for International Development-Guatemalan agrarian reform program for farms averaging 50 acres, 4,781 land titles have been issued. This is an increase of about 18 percent over farms of that size recorded in the 1950 census. Guatemala has also granted 16,087 titles for farms under 2 acres.

Some Guatemalans feel there are two priorities: Higher and more universally applied land taxes to either force idle land into production, or make it available to middle-class farmers for purchase—and long-term agricultural credits to provide these farmers with means for purchasing land.

Uruguay

28.2% of the farms are under 24 acres and occupy .7% of total farming land. 4% of the farms are over 2,400 acres and occupy 55.8% of total farming land.

Uruguay, one of the world's smaller countries, has about 96 percent of its total land area in farms. Farms for the landless, or larger farms for small landowners, must therefore come from redistribution of present holdings.

Since 1912, Uruguay has passed a number of laws on land reform. In sum, these authorize the government to purchase private land to divide into smaller tracts for sale to new owners and to provide more favorable credit terms and farm improvement loans up to 20 percent of the property's value.

Another law established the National Institute of Resettlement to promote rural industries and farm cooperatives and to find solutions for rural social problems.

By 1959, 3,255 farms averaging 242 acres each had been established through these programs, and an additional 550 farmers were given loans to purchase farms. However, at the end of 1959, there were 12,000 farmers still on the Institute's waiting list. Their requests totaled 5 million acres, or about one-eighth of Uruguay's total farm area of 41 million acres.

Venezuela

67% of the farms are under 12 acres and occupy 2% of total farming land. 1.7% of the farms are over 2,500 acres and occupy 74.4% of total farming land.

In late 1961, President Rómulo Betancourt of Venezuela presented permanent land titles to 151 farm families—some of the first to be awarded under the Agricultural Reform Law of 1960. One such presentation was witnessed by President John F. Kennedy and his wife.

The new law contains far-reaching reforms in the system of property, tenancy, and land use—and an expanded and improved organization of marketing, credit, technical training, and other services needed by rural owners working agricultural lands.

Resettlement is to proceed first on unused public lands, but private land may be expropriated and purchased. Tenants and agricultural laborers get first preference. Payments are on a 20- to 30-year basis with annual amounts not to exceed 5 percent of gross income. Titles to the new farms become permanent only after an 18 months' proving period.

From 1949 through 1958, 5,572 families were resettled on 250,461 acres. From 1959 through 1961, 40,000 additional families moved onto nearly 40 million acres in the over 400 settlements throughout the country. The goal for 1962 is 30,000 more families, and by 1963, a total of 100,000 families will have been resettled on 7 million acres of farmland.

How We Are Developing Markets in Latin America

By DANIEL S. SHEPPARD
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Above, TV nutrition program in Colombia features pasta for macaroni. Right, soap is also being promoted in Colombia. Here a health official gives out free cakes.

Our market development program has come a long way since its inception in 1955. It is now firmly established as an effective means of maintaining and expanding markets abroad for our agricultural products, and it is creating new markets where none existed before.

Operated by the Foreign Agricultural Service, the program was set in motion by Public Law 480. Under Title I of that law, foreign currencies generated to the credit of the United States through sales of our surplus agricultural commodities largely finance market development activities.

FAS does not function alone. To the maximum extent possible, government and private trade groups, both here and abroad, act as partners.

The program is working successfully in many parts of the world, particularly in Western Europe and Japan. It has also been launched in Latin America.

Latin America is an important cash buyer of U.S. farm products and could be an even larger one. Practically all of the Latin American countries are striving to improve their financial situation, provide better schools, marketing facilities, transportation, and, in general, raise the level of living. With this developing future, U.S. agriculture is giving increasing attention to the Latin market.

Grain and Feed

Probably our most concentrated effort has revolved around wheat and feed grains. In the case of wheat, FAS cooperates with Great Plains Wheat, Inc., which maintains an office in Lima to supervise projects in South America and is planning another in Panama to cover the Central American and Caribbean areas.

Promotional activities take many forms. Some are directed toward school lunches and nutritional education. Other are of a technical nature—giving assistance to millers and bakers, for example.

Considerable effort has been expended in Colombia. Although this country is attempting to achieve self-sufficiency in wheat production, it needs to import wheat, first, to fulfill a deficit in its own output and second, to supply the demand for better quality wheat than is grown locally.

A baker's training school has been established in Colombia. An educational campaign in nutrition is being carried on through radio, television, and printed material. Also, movies are being used to acquaint not only the public but millers and government officials with uses for wheat and the U.S. wheat industry. (The same films are being shown in other South American countries.)

Brazil is also benefiting from a nutrition campaign. Through a local agency, the consumption of pasta products is being promoted by means of mobile units that give demonstrations throughout the country. At the same time, consideration is given to more balanced meals.

In Brazil specialists from FAS as well as the Great Plains Wheat group are working on school lunch programs. These are still limited to São Paulo and Rio de Janeiro but they are having a definite impact. The U.S. team supplies foods on the U.S.

surplus list and educational material, while local and government agencies provide the building facilities, nutrition staffs, and any additional foods.

Peru's school lunch program is getting wide publicity in that country. It is a pilot project, endorsed by the Peruvian Government, and is being used to train nutritionists from other countries as well as from Peru. A model bakery was recently established in Lima which will use high-quality flour milled from U.S. wheat.

So far, feed grains have not been promoted quite so extensively as wheat, but a program has been set up with the U.S. Feed Grains Council to expand livestock feeding in South America. Last year the Council entered into a contract with the Colombian Feed Manufacturing Association, and an estimated 80,000 tons of U.S. feed grains were imported duty free. Programs are also being planned for Venezuela, Peru, and certain Central American countries, under a regional director from the Council.

Dairy Products

One of our earliest efforts in Latin America was aimed at stimulating the consumption of dairy products in excess of local supplies. In 1956, Dairy Society International, with headquarters in Washington, signed an agreement with the U.S. Government and since then has been carrying on extensive promotional work.

In Brazil DSI has a promotional project known as the "Better Breakfast Campaign." It started with nutrition tests on medical students to determine the advantages of including milk and other dairy products in the typical light Brazilian breakfast and lunch, and will soon include tests of school children. The Brazilians are much in favor of it.

A project is just getting underway in Chile. A new milk-recombining plant opened last year in Antofagasta, the first of its kind in South America. Using U.S. recombining ingredients, the new plant is currently making milk and ice cream. The products will be advertised extensively and also featured in a nutritional education program. Of interest is the fact that U.S. dollar exports of milk ingredients to Chile are reported to have shown a marked increase since this plant began operations.

Soybeans and Tallow

Early last year the Soybean Council of America moved into Latin America and initiated a full-scale market development program. In Colombia, Peru, and Venezuela their efforts to stimulate the use of soybean meal in mixed feed have proved successful.

In Peru, where the daily diet of a good share of the people is inadequate, a program has been started under the direction of the Soybean Council office in Lima that will promote the use of soybeans not only for livestock feeding but also in human nutrition. Studies are now being conducted in the nutritional requirements of infants for soy protein, and tests are being made of the diets of severely protein-deficient children. Human nutrition is also getting attention in Colombia.

Our tallow activities are currently confined to Colombia where a campaign is going on to make the population aware of soap as important to good health. The program, however, was so designed that it can be readily adapted to other Latin American countries where opportunities exist for expanding imports of U.S. tallow and greases. Our partner in the campaign is the National Renderers' Association.

Dairy Cattle and Livestock

A very important phase of our development work in Latin America is the promotion of U.S. dairy cattle and livestock. U.S. dairy cattle associations have been most active in their cooperation. Dairy cattle specialists go to the leading importing countries in Latin America to advise on the building-up of herds, and teams of cattle breeders come here to study our dairy cattle industry and to buy bulls. Our representatives judge dairy cattle at local shows and hold meetings with breeders, importers, and local officials, pointing out the advantages of high-quality U.S. breeding stock and encouraging the purchase of U.S. animals. We also work with local groups in establishing demonstration herds.

Similar activities are helping to sell purebred beef cattle, sheep, and goats. The effectiveness of this work is indicated by the fact that our dairy cattle shipments to the area last year are estimated at 13,500 head compared to 7,185 in 1958. In this same period, hogs, sheep, and lamb exported rose from 18,394 to 38,000 head; and while beef cattle numbers did not increase, the value rose.

Trade Fairs

Wider in scope are our exhibits at trade fairs. In the last 7 years, U.S. commodities have been shown to millions of Latin Americans at their big international fairs in São Paulo, Bogotá, and Lima. The products featured have ranged from wheat, cotton, feed grains, dairy products, and soybeans to such consumer products as dried fruits, soap, fresh and frozen foods, poultry, cakes, and bread.

For the Latin Americans these fairs have proved to be eye-openers. Many have not the money to buy the products that they see, but they need them, and they realize that the time is coming when they will be able to live at a higher level than they are now doing. Until then, we—the U.S. Government and the U.S. food industry—will continue our work of studying their needs, educating them nutritionally, and cooperating with their governments and agricultural groups to help bring about this better life.

Alliance for Progress

(Continued from page 4)

480. This law provides many examples of the use of our agricultural strength under Food for Peace to support and fulfill international obligations.

All considered, the progress made by the Alliance to date is notable. Yet, at the same time, it seems inconsequential in terms of the goals set for this decade. The United States, in common with all the American States, has much at stake. The achievement of Alliance objectives, with all the benefits of shared abundance and closer social and commercial relations, will eventually mean a better life for all Americans. Indeed, the importance of Alliance success extends far beyond the Western Hemisphere, to all the countries of the Free World.

New U.S. Trade Pact With Common Market

U.S. negotiators at GATT meetings have just completed the most extensive bargaining ever attempted under the Reciprocal Trade Agreements Act. Among agreements were farm trade concessions by the Common Market.

From the U.S. farmer's point of view, the most important of the new trade agreements reached at GATT meetings just concluded in Geneva are the fixed tariff concessions made by the European Economic Community—the Common Market—on 70 percent of the U.S. trade in agricultural products with Market countries.

U.S. negotiators also secured "standstill" agreements on another group of products—namely, wheat, rice, grain sorghums, corn, and poultry—which account for about $214 million of U.S. farm exports to the area. Current trade arrangements on these products are to remain unchanged, pending future negotiations.

No new agreements were negotiated for the 10 percent of total U.S. farm exports to the Market not covered by fixed tariffs or standstill agreements. These products include rye, barley, oats, wheat flour, hops, fresh lemons, powdered eggs, and cigar wrapper tobacco. Their value in 1960 was $123 million.

Future EEC Farm Policy

The Common Market—which includes France, West Germany, Italy, Belgium, the Netherlands, and Luxembourg—is the biggest cash customer for U.S. farm products. It accounts for about one-third of the United States' dollar export market. The Common Market seeks to eliminate trade restrictions between its member states while establishing a common tariff level on a commodity-by-commodity basis applicable to products of all outside suppliers.

The Geneva meetings provided the first opportunity for U.S. farmers to get an idea of what might lie ahead for their exports to the Market area. It is, therefore, worth noting that U.S. representatives emerged with agreements covering future trade in a wide range of agricultural products. It had taken 17 months of exhaustive and complex discussions, complicated by the Common Market's concurrent struggles to develop a common agricultural policy, to accomplish this.

The new fixed tariffs, or bindings, cover about 70 percent of U.S. exports to Common Market countries. These exports—valued in 1960 at $764.6 million out of total $1.1 billion U.S. farm sales to the area—include such products as cotton, soybeans, unmanufactured tobacco, tallow, hides and skins, and certain fruit and vegetable products.

Lower U.S. and EEC Tariffs

Cotton and soybeans will enter EEC countries duty-free. Other important commodities will also move under duty-free or relatively low fixed rates of duty.

On its part, the United States agreed to tariff concessions on agricultural products exported by GATT nations to the United States valued at about $57 million. Of this amount, $43.5 million is supplied by Common Market countries.

On the whole, trade officials expect a favorable development of trade with the Common Market for most of the products covered by fixed tariffs. These concessions should further stimulate U.S. sales already up from $522.2 million in 1958 to $704.6 million in 1960.

The ultimate effects of the negotiations will obviously not be the same for all products. U.S. negotiators still hope to bargain favorable access for the products covered by standstill agreements. Meanwhile, adverse effects will probably be limited during the coming year for these commodities, which will be subject to variable import levies under EEC's common agricultural policy.

TARIFF CONCESSIONS BY THE UNITED STATES AND EEC UNDER THE GENERAL AGREEMENT ON TARIFFS AND TRADE

	EEC Rates on U.S. Farm Products[1]	
	Old [2]	New [3]
Fresh oranges	15%	15%
Fresh grapefruit	12%	12%
Fresh apples (Jan.-Mar.)	12%	10%
Dried prunes	8%, 22%	16%
Raisins	12%	8%
Canned fruits	20-35%	25%
Canned asparagus	35%	22%
Fruit & vegetable juices	10, 17, & 20%	19-22%
Raw cotton	Free, 6%	Free
Vegetable oilseeds	Free	Free
Oilcake & meal	Free	Free
Crude soya & cottonseed oils	6%, 25%	10%
Refined vegetable oils	25%	15%
Unmanufactured tobacco (except wrapper.	19.4c lb	28%, with 17.2c lb max. 13.2c lb. min.
Hides & skins	Free	Free
Variety meats, cattle & swine	10-20%	20%
Industrial tallow	Free	2%
Rosin	Free	5%

	U.S. Rates on EEC Farm Products[1]	
	Old	New [3]
Tulip bulbs	$2 per thous.	$1.40 per thous.
Hyacinth bulbs	$2 per thous.	$ .75 per thous.
Narcissus bulbs	$3 per thous.	$2.10 per thous.
Bulbs, roots, clumps, corms, etc.	7½%	5½%
Sheep's milk, cheese	3c lb., 15% min.	3c lb., 12% min.
Roquefort cheese	3c lb., 15% min.	3c lb., 12% min.
Tomato paste & sauce	21%	17%
Mushrooms	4c lb. + 12½%	3.2c lb. + 10%
Onions, in brine	10½%	8%
Other vegetables in brine	15%	12%
Soups, soup rolls, soup tablets or cubes, etc.	17½%	14%
Olive oil	4.75c lb.	3.8c lb
Various essential oils	6¼%	4%
Cordials, liquors	$1.25 proof gal.	$1.00 proof gal.
Brandy	$1.25 proof gal.	$1.00 proof gal.
Edible gelatin	10% + 2c lb.	8% + 1.6c lb.
Hops (value 50c lb. or more).	12c lb.	10c lb.

[1] Rates negotiated between individual GATT members become applicable to all. [2] For some items there is more than one old tariff rate because the rate was different in different EEC countries. [3] To take effect on July 1, 1962.

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